Measuring volume with accuracy

This task is about measuring accuracy of equipment.

Often in science we need to measure materials as accurately as possible. We measure volumes with many different pieces of equipment in the laboratory. Your task is to find the accuracy of three pieces of equipment when measuring water

In groups of 3:

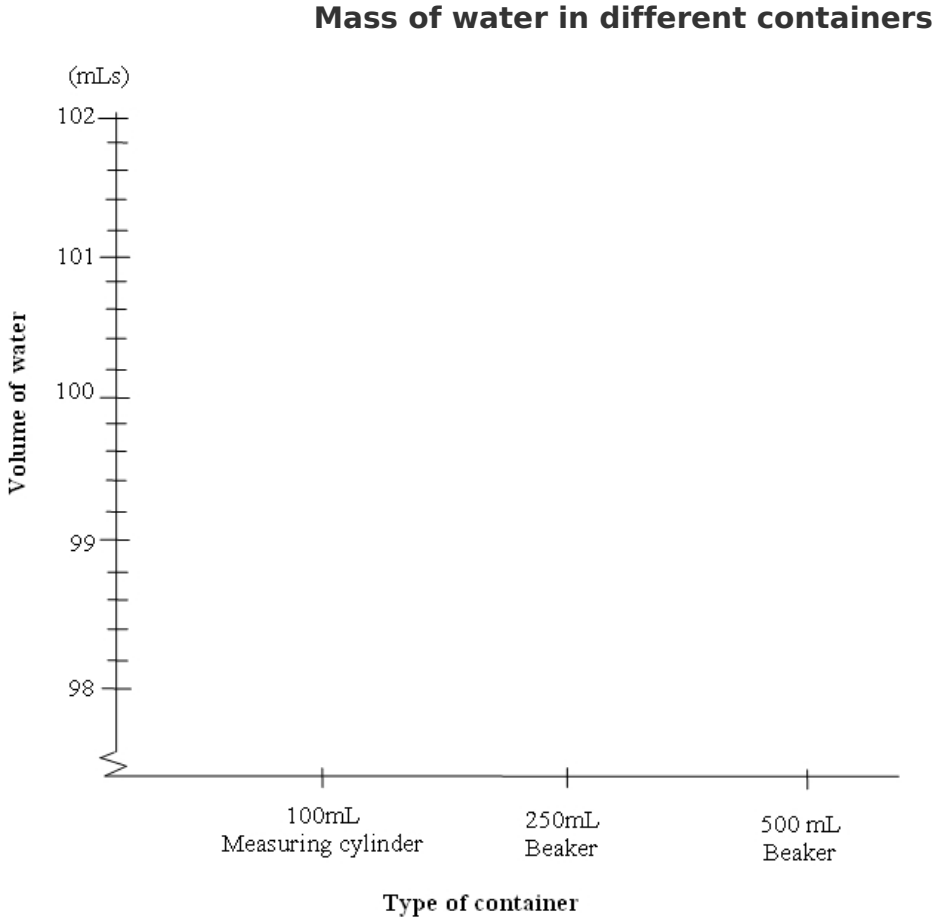
. Weigh each cylinder/beaker and write this in the table provided (column 2).
. Measure 100 mL of cold water into each piece of equipment.
. Weigh the piece of equipment with the water in it, and fill in columns 3,4 and 5.
. Repeat steps 1-3 four more times.
. Plot results from column 5 onto the scatter graph.
. Discuss the patterns with your group, then answer the two questions, c)i) and ii).

NOTE: 1mL of water weighs 1g

a)

1 Equipment	2 Mass of equipment (g)	3 Mass of equipment & water (g)	4 Column 3 - Column 2 = Mass of water (g)	5 Difference from 100mL
Measuring cylinder Trial 1 Trial 2 Trial 3 Trial 4 Trial 5				
250 mL beaker Trial 1 Trial 2 Trial 3 Trial 4 Trial 5				
500 mL beaker Trial 1 Trial 2 Trial 3 Trial 4 Trial 5				

b)Enter the results from Column 4 to complete the scatter plot.



c)i) Which is the most accurate piece of equipment? _____

ii) Why do you think this piece of equipment was the most accurate?

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